Mr. Scott Kuhn
Laidlaw Environmental Services
Location: Pinewood, SC
Phone: 803-933-4305
Interview conducted by: Maribelle Rodriguez, Jay Doraiswamy
Date of interview: November 4, 1997

Mr. Kuhn stated that they can readily meet the proposed treatment standards for all the metals through stabilization. He stated that they are using a stabilization processes called Super D Tox to treat the TC metals. He stated that any necessary modifications to the stabilization system can be readily made (in less than 90 days) to meet the proposed treatment standards for the TC metals. He stated that currently they are successfully treating the most difficult to treat wastes (such as the K061 wastes containing 13 different metals) through stabilization and, therefore, do not expect any problems with the revised TC metals treatment standards. Mr. Kuhn stated that their facility currently has a maximum stabilization treatment capacity of approximately 1.3 million tons per year and is currently only utilizing about 312,000 tons per year.

Mr. David Case
Environmental Technology Council
Location: Washington D.C.
Phone: 202-783-0870
Interview conducted by: Maribelle Rodriguez, Jay Doraiswamy
Date of interview: November 4, 1997

Mr. Case stated that none of their member facilities have any problems with treating the TC metal and mineral processing wastes to the proposed treatment standards. He stated that even complex waste streams can be treated to the proposed treatment standards using a well-run treatment system. He noted that ETC has collected data from five separate sites around the country representing a wide variety of wastes and the treatment performance data shows that the proposed treatment standards can be readily achieved (this data was provided by ETC in response to the second supplemental proposal). He agreed to survey ETC's members and collect additional information on stabilization capacity, if a written request is made to ETC.

FACSIMILE MESSAGE

TO: Jay Doraiswamy, ICF Consulting Group **FAX: 703/934-3740**

FROM: Name: Gary Metcalf

Title: V.P. - Environmental Affairs

Company: LWD, Inc

Telephone: 502-395-8313 Fax: 502-395-8153

DATE: November 12, 1997

RE: Response to EPA Information Request

This facsimile responds to your inquiry to the Environmental Technology Council regarding commercial capacity for stabilization treatment of TC-metal wastes to meet the proposed treatment standards in the LDR Phase IV rule.

In general, modifications can be made to stabilization treatment systems, if necessary, within 90 days to meet the proposed treatment standards for TC metal wastes. This is shown by the following example of the average time periods for stabilization of metal wastes based on our experience:

Time needed to characterize the waste: 2 weeks

Time needed to determine the stabilization process: 2 to 4 weeks

Time needed for conducting bench-scale tests: 2 to 4 weeks

Time needed to modify stabilization system: 1 to 2 weeks

Time after waste receipt to complete stabilization: 2 to 5 days

Other information showing that treatment system modifications, if any, can be done within a short amount of time:

Maximum treatment capacity for stabilization: 400 Ton/day

Average utilized capacity: 10%

If EPA has any further questions, please contact the respondent.

Fax Transmittal Memo

To	Maribelle Rodriguez	From	Scott Kuhn
Company	ICF	Company	Laidlaw
Location		Location	Dept. Charge
Fax #	703-934-3740	Fax #	Telephone #
Telephone #			
Comments		Original Disposition:	☐ Destroy ☐ Return ☐ Call for pickup

Info you requested on Stabilization capacity

Sheet1

Laidlaw Facility	Characterization Time		Disposal Time from Receipt	Capacity	Current Utiliztion
	Typical	Max			
Pinewood, South Carolina	2-5 days	14 days	1-2 days	90,000 gallons/day	30-40,000 gallons/day
Waynoka, Oklahoma	5-6 days	30 days	1-2 days	200,000 tons/year	50-70,000 tons/year
Clive, Utah	5-10 days	45 days	1-2 days	132,000 tons/year	24-36,000 tons/year
Buttonwillow, California	7-14 days	30 days	1-2 days	340,000 tons/year	16,000 tons/year
Westmoreland, California	7-14 days	30 days	1-2 days	340,000 tons/year	16,000 tons/year

APPENDIX A-4
PHONE LOG - Contacting EPA Region Three, Pennsylvania

State Contact:	**Robert Finkel**
Phone:	(717) 783-9183
Email:	finkel.robert@a1.dep.state.pa.us
Department:	Bureau of Waste Management, PA DEP
Response Received:	April 17, 1998

- **Mill Service - Bulger** is a closed facility that treats multi-source leachate generated on-site. They have a treatment for the on-site treatment.

- **Mill Service - Yukon** is permitted for 402,584 tons. They may divide this capacity between inorganic treatment and stabilization. In 1997, they received 13,054 tons for inorganic treatment (M071, M077) and 37,434 for stabilization. The general trend has been decreasing inorganic treatment as steel ill waste has diminished or is otherwise being recycled, and an increase in stabilization, mainly of contaminated soils. (1995: 46,850 M07X; 28,730 M111)

- **Envirite** is permitted for 83,311 tons, as with Mill Service all for inorganic treatment which they can divide between inorganic treatment and stabilization. Envirite received 25,000 tons for aqueous inorganic treatment in 1997 (30,257 in 1995) and 9,500 tons for stabilization (39,542 in 1995). They also began sending waste off-site for reclamation in 1997 (8,215 tons) which would have stabilized in previous years.

- **Republic Environmental** is permitted for 94,740 tons organic/inorganic treatment (they only do inorganic), 109,000 tons stabilization and 90,223 tons other treatment. They received 5,681 tons for treatment and 9,660 for Stabilization in 1995. (1997 totals are not yet available)

MEMORANDUM

FROM: C. Pan Lee, Environmental Scientist
EPA/OSWER/OSW/HWMMD/AIB

TO: The RCRA Docket

SUBJECT: Conference Call Summary regarding Treatment for Selenium Wastes

DATE: 2:30-3:40 pm, May 16, 1996,

DRAFT

Participants in Conference Call:

Anita Cummins, EPA/OSW/Waste Treatment Branch
Jose Labiosa, EPA/OSW/Waste Treatment Branch
C. Pan Lee, EPA/OSW/Analysis and Information Branch
Mike Fusco, Rollins Environmental, Inc., Tel. (302)426-3471
Richard Grondin, Technical Manager, Rollins' Highway 36, Tel. (970)386-2293
Steve Schneider, Laboratory Manager, Rollins' Highway 36
Royce McDonald, Rollins' Highway 36

Rollins expressed concerns of achievability of the proposed universal treatment standard (UTS) for TC selenium. The mingled selenium waste streams Rollins' Highway 36 accepts are from incineration ash and slag and contaminated soil (including D, F, and K waste codes residuals from organic waste streams, soil and debris contaminated with D codes containing different metals). They claimed they are still not able to find appropriate agents for stabilization to treat selenium to its UTS.

They received about 20 to 30 tons per day of incineration ash from Rollins facilities but have rejected the wastes with high selenium concentrations. They will try to find out the sources of selenium in the mixed waste streams received. They would provide us with design stabilization capacity data in the permit and a list of waste codes permitted to treat (Please see the attached . Their projecting utilized stabilization capacity for 1996 is about 110,000 to 120,000 tons. Rollins also has Subtitle C landfills and stabilization on the sites (?) in Louisiana and Texas, but they are mainly for captive usage and Rollins did not foresee any plan to open these landfills for commercial activities. Waste Treatment Branch also mentioned the stabilization technologies used by Laidlaw-USPCI and Envirorite can meet selenium UTS. A side question for arsenic was also asked: Highway 36 does not accept arsenic-containing organometalic wastes but can treat (stabilize) other types of arsenic wastes and meet UTS for arsenic.

Attached please find the waste treatment of selenium and stabilization capacity data submitted by Highway 36 on May 17, 1996.

PHONE LOG

TO: The RCRA Docket

FROM: C. Pan Lee
EPA/OSW/HWMMD/AIB

SUBJECT: Clarification for the Information Submitted by Rollins

CONTACT: Mike Fusco
Director of Environmental Affairs
Rollins Environmental Services (RES)
Tel: (302)426-3471

DRAFT

DATE of PHONE CALL: May 29, 1996

RES confirms that the CBI for incineration capacity submitted by RES on May 7, 1996 is annualized data. Among the information provided, Rollins Rotary Reactor (RRR) is a long rotary kiln with a lifter (a bucket like) inside for feeding sand and soil to the kiln. It is a fluidized rotary kiln and designed for low BTU materials such as soils. Generally RES blends solids and soil/debris in the mixing building (pits tank) and the mixture directly goes to feeding harper in front of kiln. Soil/debris usually come to RES by rolloff container or trailer.

Also, RES stated in their comment in response to LDR Phase IV proposed rule (published August 2, 1995) that EPA did not include ECOVA in the available combustion capacity . Per phone conversation RES expressed that ECOVA is not one of RES's subsidiaries, but they know ECOVA has a fluidized bed kiln for treating low BTU solid and was originally bought by Amoco for treating K048-K052, F037 and F038. Now it is operated by Clean Harbor (but RES did not know who is the owner). RES also mentioned that ECOVA is a relatively small commercial facility. (The contact in ECOVA is: Paul Aheorn, tel: 617-849-1800 although RES is not positive about this information.)

MEMORANDUM

TO: RCRA Docket

FROM: C. Pan Lee
EPA/OSW/HWMMD/AIB

DRAFT

SUBJECT: Meeting with Brush Wellman

DATE: May 23, 1996

Participants:
Mary Cunningham, EPA/OSW
C. Pan Lee, EPA/OSW
Anita Cummings, EPA/OSW
Marc Kolanz, Corporate Director, Environmental Health and Safety, Brush Wellman
Mike Petruska, EPA/OSW

We met with the representative of Brush Wellman to follow up beryllium issues (e.g., disagree with such low beryllium UTS) raised in its comment. Their lead-bearing waste streams (D008) contain more than 14% of beryllium. Its comment claimed that Horsehead would not accept its wastes and it has not contacted INMETCO yet.

We have asked Brush Wellman to provide the EPA with problems to meet UTS for beryllium, any available treatment data to justify a higher standard if any, volume of the lead-containing waste streams, and sources of the streams.

MEMORANDUM

FROM: C. Pan Lee
EPA/OSW/HWMMD/AIB

TO: The RCRA Docket

SUBJECT: Capacity-Related Information

DATE: May 23, 1996

DRAFT

Participants:

Anita Cummings, EPA/OSW
Mike Petruska, EPA/OSW
Kevin Igli, CWM
Mitch Hahn, CWM
Paul Borst, EPA/OSW
Mary Cunningham, EPA/OSW
Jim Buchert, Versar
C. Pan Lee, EPA/OSW
Jose Labiosa, EPA/OSW
Steve Silverman, EPA/OGC
Sue Slotnick, EPA/OSW
Jim Thompson (Phone), EPA/OECA

This meeting note mainly summarized the capacity-related information. (For treatment issues, please refer to meeting notes prepared by Versar for Waste Treatment Branch.) CWM provided treatment data (CBI) to EPA. They stated that industries are generally lack of data for UHC in the wastes streams. They will provide volume data for the 20 to 30% of total waste streams received which are subject to additional treatment if they have to meet the proposed UTS for some of TC metals. Another 5 to 10% (in addition to 20 to 30%) of currently approved waste streams will not be able to meet the proposed UTS even with the development of new recipes.

CWM's current stabilization capacity of 500,000 tons per year is provided by their facilities in (1) Emelle, AL; (2) Kettleman City, CA; (3) Arlington, Or; (4) Model City, NY; (5) Fort Wayne, IN and (6) Menomonee Falls, WI. They are not currently using stabilization capacity maximally.

Attached please find a copy of meeting notes prepared by Versar for OSW/WTB.

DRAFT SUMMARY OF MEETING WITH REPRESENTATIVES OF CHEMICAL WASTE MANAGEMENT (CWM) TO DISCUSS COMMENTS AND DATA RELATED TO PHASE IV

May 23, 1996, 10:00 - 12:00
2800 Crystal Station
Arlington, VA
2nd Floor, Costale Room

DRAFT

ATTENDEES: See Attachment 1

The following summarizes the issues that were discussed at the May 23, 1996 meeting between EPA and CWM representatives. This narrative does not provide a verbatim account of the meeting, and for the purposes of clarity and continuity, items are sometimes not presented in the order in which they were discussed.

The purpose of this meeting was for EPA and CWM representatives to discuss comments and additional data regarding the Proposed Phase IV rule (proposed treatment standards for characteristic metal wastes). The primary concerns expressed by CWM were treatment of wastes that (1) have problems meeting current LDRs; (2) have more than one metal contaminant; (3) contain arsenic, lead, or selenium; and (4) have low levels of contamination. CWM also expressed concerns about the perceived inconsistencies between RCRA and TSCA and the HWIR and Phase IV rules.

After copies of the meeting agenda (attachment 2) were distributed, CWM began with a few opening comments: The comments submitted by CWM were based on a survey of their technical managers. Additional data were provided by CWM that backs up their comments with real waste stream data. In general, CWM lacks data for UHCs, because there have been no previous regulatory drivers requiring generators to test for these constituents in their wastes.

CWM asserted that from a policy standpoint, the Phase IV proposal does not make sense. For example, concerns were raised regarding scenarios such as the following: if a waste is characterized as D008, it will need to be treated for UHCs, but if a similar waste had the same UHCs at higher concentrations, but did not contain lead, it may not be hazardous, and therefore, could be sent to a Subtitle D facility without treatment. Because it fails TCLP for lead, the first waste pulls the organics into Subtitle C. CWM also mentioned the current EPA policy which states that a hazardous waste with metals cannot be burned unless it contains organic UHCs above the UTS levels. If the UHC levels are barely exceeded, incineration may not be appropriate, but it is allowed.

CWM stated that the current system is working fine, and wondered what value was added by the proposal. The UHC requirement complicates the waste characterization process when generators use their knowledge of the characteristics of the waste stream; at low UHC levels,

the generators would just be guessing. Currently, no one can certify that the UHCs are not in the waste.

Sometimes decharacterized waste is sent to a Subtitle C landfill. (The changes to 40 CFR 258 have resulted in better construction of Subtitle D landfills, and the design standards are much closer to Subtitle C than before.)

Agenda items 1 and 2: Applying UTS and UHCs to Characteristic Metal Wastes

CWM stated that their technical managers provided their data quickly, and more may be available. They also stated that when, for example, D008 is treated, treatment is halted when the concentration of the lead in the waste is below the characteristic level of 5.0. Sometimes the TCLP result may be lower than 5.0, but CWM has not tried to reach 0.37, and although they have achieved this level on some occasions, they do not know if it can be reached on a regular basis. Typically, the waste will carry multiple waste codes, and interaction of the metals will interfere with the test results (e.g., low lead leachate, but high chromium leachate levels). CWM indicated that they need to examine the waste streams individually, and determine what new (and possibly cheaper) reagents they need to add to meet the UTS. CWM referred to their original comments where they stated an estimated cost of about $1,000 per waste profile to do this. They mentioned that one of their facilities recently examined different profiles and determined that the cost of changing their stabilization recipes increases the treatment cost by about 32 percent. CWM estimates that about 70 to 80% of the waste that they currently treat can meet UTS without additional cost.

The current CWM treatment capacity is 500,000 TPY, but "20 to 30 percent" of this will require a new treatment recipe to meet the UTS for D004 through D011 wastes. The recipe for a batch stabilization is specific for that batch and is determined on a case-by-case basis. CWM tries different recipes in the lab, and then scales up the process. Treatment is verified at each step in case the original sample was not representative of the waste.

CWM disagrees with EPA's positions that (1) treating to meet the characteristic level does not exempt a waste from RCRA, and (2) even though there is good treatment now, it should be modified if there is better treatment. When treating for metals to UTS, there can be other changes to the wastes characteristics (e.g., solubility) that may effect its treatment. Problems can occur when treating at low ppm levels. For example, when the standard is 0.5 ppm and a waste has been treated to 0.75 ppm, re-treatment with bulk reagents can lead to incidental dilution. (Multiple facilities use a back hoe and a pit to do stabilization.)

CWM believes that pre-treatment is too costly, and competition is already difficult. EPA believes that pre-treatment to homogenize wastes should not be cost prohibitive, because, based on the reaction kinetics, treatment would be ineffective without it. Sometimes pre-treatment (e.g., crushing) is done to facilitate the process. Sometimes problems such as different particle sizes, or a "sticky" clay matrix can require pre-treatment.

Problem wastes include those that contain arsenic, lead, and selenium. Treatment of wastes containing selenium is a consistent problem, especially as an UHC. Sometimes lead is a problem, but CWM can normally treat to meet UTS most of the time. Treating for more than one metal at a time is a problem. Results depend on the interaction of the metals in the waste.

In addition to the "20 to 30 percent" of wastes that are difficult to treat, CWM indicated that 5 to 10 percent are "untreatable." CWM was unsure of the characteristics of these wastes (data and information was not presented at the meeting). EPA is interested in a breakdown (i.e., soil, debris, process) of these wastes. CWM uses the alternative standards for debris, and generally segregates "problem" wastes such as those that contain arsenic and selenium.

When asked about the co-mingling of wastewaters that generate a sludge, and whether the stricter standards will lead to source segregation, CWM stated that they did not believe so. Rather than installing a second tank, CWM believes an electroplater will send the waste to a treater to get rid of the problem before 90 days. They believe that generators will keep looking for a TSDF to solve their problem, such as sending wastes to Stabilex and Laidlaw in Canada, and that generators will treat the waste themselves only in an exception. In general, generators call a TSDF for large one-time wastes, and focus on minimization of continuous process waste.

The CWM waste treatment database (comprised of 6 years of data from all of their sites) may not contain information on trying to treat selenium to lower levels, because CWM only tries to meet the current BDAT levels. CWM stated that the TCLP for selenium in a waste may not change, even when the treatment process recipe for that same waste is modified. Treatment of wastes containing beryllium was not included as part of CWM's data submission, but they could look into it if necessary.

Agenda item 3: May 10, 1996 NODA

- Organic UHCs

CWM does not have much data on organic UHCs except for PCBs treated in conjunction with metals. TOC data is also not available because the generators do not provide it, and CWM does not ask for it. For example, additional TOC information may be requested if organics are identified on a waste profile as present at significant concentrations (e.g., one percent). In general, there is no analytical data to back this value up. CWM does not request halogen analysis for wastes to be stabilized. When their database was queried, only a few examples were found. Previous CWM comments to EPA regarding organic UHCs were guesses, based on their PCB data. CWM conducted stabilization tests in 1985 on low level (1%, 2%) organics, and may have some data (CWM did not have the data at the meeting, and would need to retrieve it from their database).

CWM asserted that treating foundry sands is not a problem if the levels of organics are known. Treating foundry sands with TC level metals can be a problem. CWM asserted that when treating a waste, they need to consider how the level of organics will effect the treatment. They

also examine the level of interference of the constituents, and the effect that these constituents (especially organics) have on liners.

Regarding treatment with organically modified clay, CWM has not reviewed this process yet, but has tried organic oxidation and stabilization (same principle), and submitted their data to EPA. The data show that the treatment does not work well. When the waste is stirred, organics are volatilized. When cement is added, heat is generated, and more organics are volatilized. Even low levels of organics will be volatilized, and these organics are not easily captured.

EPA is examining the following scenario: if a waste meets the UHC standard, then it automatically meets the Subtitle CC standard (i.e., Air Emission Standards for TSDFs). EPA is looking for data that correlates UHC concentrations to the 40 CFR Part 264 Subtitle CC (i.e., Air Emission Standards for TSDFs) action levels, and if the above scenario works in both directions. CWM commented that it would primarily depend on the efficient operation of the stabilization technology. Subtitle CC air emission controls could cover the VOCs that were driven off during treatment, but adequate capture may be a problem. Particulates are captured, but VOCs are a problem because of the huge air volume.

When asked which organic UHCs are most likely to be found in wastewater treatment sludges, CWM stated that they do not have data for plating sludges with low levels of organics because their waste profiles do not always have this information. This may be asked of their customers if the new rule is promulgated. Treated F006 and F009 wastes have not been tested for phthalates, etc., and CWM does not know if they are present. EPA suggested that a generator would know what was in a solvent used in cleaning operations, or the plant engineers should have a feel for this data. CWM suggested that the electroplaters trade association might know this information.

To determine the volume of UHCs and the levels of UHCs in wastewater treatment plant sludges, CWM could only give an educated guess, from the information in their database. This would tell them where to look in the future. Surveying their managers and doing a database query would take a couple of weeks.

CWM data for D012 through D043 wastes has some metals information, but not much on UHCs. EPA wants to get an idea of what is in the waste (e.g, phthalates, solvents, etc.). To accomplish this, the CWM database can be queried by company name, process name, waste code, etc., and after input from their technical managers, CWM could extrapolate a response.

The "order of magnitude" test for organics was recommended by CWM technical managers as an approach to alleviate the problem of wastes with low levels of organics (but CWM has no data to support this).

- PCBs

Last year CWM stabilized 46,000 tons of D004 through D011 wastes with TSCA levels of PCBs. TSCA allows land disposal of "solid" PCBs in a TSCA cell without incineration. There is substantial data to support that "solid" PCBs stay in place once stabilized. RCRA requirement to incinerate may be counterproductive. CWM indicated that the levels of PCBs in the waste they treat are so high that even the order of magnitude solution could not solve this problem. CWM expressed concerns over inconsistencies; TSCA allows land disposal, and treating the UHCs of metal wastes will require incineration. TSCA landfill standards are only slightly different than RCRA standards. CWM suggested that the TSCA standards are sufficient for the PCBs and the metals would be treated.

- Petroleum contaminated media

CWM requested clarification of the 261.4 exclusion for UST corrective action wastes:

Q: If a waste is characterized as D008, the proposal requires treatment for UHCs (e.g., benzene) that seem to be excluded under 40 CFR 261.4. What is the purpose of the exclusion?

A: The exclusion is for hazardous waste identification purposes only. If a waste is hazardous for any other reason, the exclusion is void, and the waste is subject to all RCRA provisions, including LDRs.

- Costs associated with change

Paul Borst/EPA asked if UHC standards would lead to exports or waste minimization, rather than incineration. The answer will depend on economics (currently, incineration can cost from $1,300 to $1,400 per ton). Paul will follow-up with CWM to discuss the nature and types of wastes where the proposal has more than a moderate cost impact.

- Environmental reasons for change in light of HWIR

CWM expressed concerns about how the HWIR rule may be in conflict with the Phase IV rule; that the Agency seemed to be going in opposite directions in terms of stringency.

EPA is constrained because of the consent decree. Also, HWIR is based on total concentrations, and Phase IV is based on TCLP concentrations. CWM was asked if they knew of any obvious wastes that would be covered under the Phase IV rule, and be exempted by HWIR. CWM data is TCLP-based. They do not have much information on the relation of totals to TCLP results. Generally CWM does not run a total analysis on untreated waste.

CWM discussed the issue of contingent management and risk. LDRs are not required to be met if placed in a low risk area. A risk model on a properly designed Subtitle C landfill in a dry climate might indicate that not much treatment is required for waste disposal. This changes if

the area is subject to high precipitation. Similarly, CWM is intrigued because wastes can be delisted at higher than BDAT levels, because delisting is based on risk.

- Lead-bearing Smelter Wastes (Slag from lead-acid batteries)

CWM requested clarification of an issue in the May 10, 1996 NODA.

Q: If a battery is smelted to meet the LDRs, does the slag require further treatment?

A: If the slag is characteristic, all other non-LDR requirements must be met. The slag must be sent to a Subtitle C unit or treated to non-characteristic levels, and then sent to a Subtitle D unit. The waste has met the LDR treatment standard, and the residue does not need to be treated further for Subtitle C disposal.

At the end of the meeting the following Action Items for CWM were discussed:

- Provide break-out (media, process, etc.) of the 20 to 30% of wastes that need to be re-tested.
- Provide break-out (media, process, quantities, etc.) of the 5 to 10% of wastes that need are "untreatable."
- Provide list of industry wastes that CWM expects will have UHCs and organics. Include corresponding SIC codes if possible.
- Provide data on testing of organics and interference problems.
- Provide information on foundry sands. Include data for organics and metals, and provide treatment costs and volumes.
- Provide data on treatment of Selenium wastes (treatment recipe is CBI)

CWM expects to have all information to EPA by June 17. CWM will call Anita Cummings with a tentative schedule for individual items.

Attachment 1: List of Attendees

Anita Cummings, EPA/OSW/WTB
Mike Petruska, EPA/OSW/HWMMD
Kevin Igli, CWM
Mitch Hahn, CWM
Paul Borst, EPA/OSW
Mary Cunningham, EPA/OSW/WTB
Jim Buchert, Versar
C. Pan Lee, EPA/OSW/HWMMD
José E. Labiosa, EPA/OSW
Steve Silverman, OGC/EPA
Sue Slotnick, EPA/OSW
Rhonda Craig, EPA/OSW
Jim Thompson, EPA/OECA (via Phone)

Attachment 2: Meeting Agenda

EPA/Chemical Waste Management

May 23, 1996

Agenda

1. Applying UTS to Characteristic Metal Wastes
2. Applying UHCs to Characteristic Metal Wastes
3. May 10, 1996 NODA

- Metal UHCs
- Organic UHCs
- Inorganic Combustion Policy
- PCBs
- Petroleum contaminated media
- Costs associated with change
- Environmental reasons for change in Light of HWIR
- Lead-bearing Smelter Wastes (Slag from lead-acid batteries)